



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 12, Issue 5, May 2023

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.423

 9940 572 462

 6381 907 438

 ijirset@gmail.com

 www.ijirset.com



Online Quiz Management System

Vaishali Bhimate, Parikshit S. Mishra, Rushikesh Gaikwad

Department of Electronics and Telecommunication, Anantrao Pawar College of Engineering & Research, Savitribai Phule Pune University, Pune, India

Department of Electronics and Telecommunication, Anantrao Pawar College of Engineering & Research, Savitribai Phule Pune University, Pune, India

Department of Electronics and Telecommunication, Anantrao Pawar College of Engineering & Research, Savitribai Phule Pune University, Pune, India

ABSTRACT: An online quiz system is an application that is developed or implemented in the Java domain or platform. This project is useful for students to practice for various mock exams. In the current generation, various examinations like GRE, CAT, MAT, etc. are conducted online. This project will also help students to get practice for online exams. The online exam portal is implemented in two modules, namely the student's registration module and the administrator module which is also known as Admin module or Teacher module. Admin module will add more questions, while in the student module, students should register through form and take an online test. In this project the audio is also recorded to avoid certain unavoidable circumstances. The purpose of the online quiz system is to save the lecturer's time as the answers are automatically marked. The online quiz system is developed using Java, JavaScript. For the database management the MySQL is used.

KEYWORDS: Online Quiz System, JavaScript, Java, MySQL

I. INTRODUCTION

In today's schools, computerised systems have become more prevalent. The use of information technology in education is crucial. The educational system has undergone a radical transformation because to computers. Education institutions can save time and space thanks to information technology, which also makes it easier to give educational services at anytime, anyplace. For instance, online libraries that are accessible to everyone have replaced physical libraries, and students from all over the world can communicate with instructors online via video or live chat. We have access to vast informational databases thanks to computers. The educational system undergoes substantial alteration as a result. Information exchanges are quick and simple because to information technology. With the development of IT, online libraries now include a wealth of information. Students can use this project to prepare for numerous mock tests. Numerous tests, including the GRE, CAT, MAT, and others, are now offered online. Students will benefit from this project by practising for online tests. The student registration module and the administrator module, commonly known as the admin module or Teacher module, are the two modules that make up the online exam site. In the student module, students should register via a form and take an online test, while the admin module will include extra questions.

II. LITERATURE SURVEY

Many different research studies are available to study the online exam system, and the detailed explanation is given below through literature survey.

Sumaiya Kabir [1], Md. Parvez Hossain [2], Kaushik Mallik [3], Mansura Rahman [4], Md. Jahidul Islam [5], Ayesha Khatun [6]. Extensive online exam system with automatic assessment technique. Release date: 01 DECEMBER 2019. This article describes the development of an online exam system. This research is part of the development of an online test system with an automatic scoring technique. Algorithms for word frequency calculation, keyword matching, linguistics analysis, and grade generation are designed in this system. The system is implemented using PhpStrom and MySQL. The performance of the executive system is evaluated by many questions and answers.

Prabhat Maity [1], Swapnil Patil [2], Pratiksha Pednekar [3], Akshata Sawant [4], Prof. MonaliRupnar [5]. Online exam system. Date of issue: 03, March 2018. Year: 05 Issue: 03 | March 2018. This article describes basic computer courses



at a college with students in areas, at a fixed time, and the same set of quizzes for all examinees in a limited physical area of the examinees. It represents the development of an online examination system. This research is part of the development of an online examination system with various modules.

K. Sandeep [1], M. Tejaswi [2], J. Hemanth [3], B. Vennela [4], D. Pavan [5]. Online Quiz Management System”, International Journal of Emerging Technologies and Innovative Research (www.jetir.org | UGC and ISSN Approved), ISSN: 2349-5162, Vol.8, Issue 7, page no. ppb155-b158, July-2021. This document provides an alternative solution to the existing manual system. Provides paperless work. It can be monitored and controlled remotely. It reduces the required manpower and provides accurate information. Bad practices can be curtailed. The collected information for all the years can be saved and can be accessed at any time. Therefore, the data stored in the repository helps in making management decisions. So, it is better to have a web-based system. This system plays an important role in colleges and universities.

Feras Al-Hawari [1], Mai Alshwabkeh [2], Haytham Althawbih [3], Omar Abu Nawas [4], An integrated and secure web-based exam management system, Date Received: 19 October 2018, Date Revised: 23 February 2019, Date Accepted: 06 April 2019 Issue: 03 | March 2018 This article discusses a web-based examination management system that is implemented in-house. It is designed based on the three-tier architecture of Java Enterprise Edition. It also allows you to define and set up examinations according to a flexible examination tree structure. Additionally, it integrates a rich text editor for writing exams suitable for various engineering and language fields. In addition, it automates the planning, grading, and reporting processes to relieve instructors from such cumbersome tasks. In addition, its capabilities and integration with various databases allow it to offer several security schemes that support strong multi-factor authentication and authorization, detect impersonation, and prevent cheating.

A Systematic Review of Online Exams Solutions in E-Learning: Techniques, Tools, and Global Adoption Received January 25, 2021, accepted February 10, 2021, date of publication February 18, 2021, date of current version March 2, 2021. E-learning is the best option in type of education where the key point is to solve different papers, solve the different quiz. This E-learning is really best option of student in Covid-19. To find the best option for online system different studies are available.

Joanna Golden [1], Mark Kohlbeck [2]. Addressing cheating when using test bank questions in online classes, Journal of Accounting Education (journal homepage: www.elsevier.com/locate/jaccedu), Date of Received: 14 May 2019, Date of Revised: 07 April 2020, Date of Accepted: 21 April 2020 The problem of academic dishonesty in online classes, already widespread, continues to grow. Over a decade ago, the International Centre for Academic Integrity found that 70 percent of college students admitted to some sort of academic dishonesty (NBC, 2006). The problem is likely to be more severe in online environments, where in many cases, the students are not monitored. The issue is further complicated by the emergence of massive online databases, or test banks, filled with exam questions (McLafferty & Foust, 2004). Searching for exam questions—and their answers—online is an easy task for Unsupervised and tech-savvy students. Assuming some students taking online exams are prone to this form of academic dishonesty, the question becomes how educators can minimize the effects of their misbehavior.

III. PREFACE TO JAVA

Java is Object- acquainted, multi-threading language developed by Sun Microsystems in 1991. It's designed to be small, simple, and movable across different platforms as well as OS. Java is Object- acquainted and Supports Internet operations. Java is an expansive library of prewritten classes and is movable among all platforms. Java is erected- in networking security as JRE is inapproachable to another corridor of the computer.

JDK (1.8):

The Java Development Kit (JDK) is a distribution of Java Technology by Oracle Corporation. It implements the Java Language Specification (JLS) and the Java Virtual Machine Specification (JVMS) and provides the Standard Edition (SE) of the Java Application Programming Interface (API).

IDE- NetBeans:

If our requirement is to opt for free, open- source, integrated development then the best solution is NetBeans IDE. NetBeans IDE which helps to develop different desktop, mobile, and web operations. The IDE gives the best support in colourful languages, including Java, HTML5, PHP, and C. The IDE gives the detailed end to end development. For



debugging and the deployment, NetBeans IDE is the best solution. The IDE we can use in Windows, Linux, Mac OS X, and other UNIX- grounded systems. The IDE gives best support for JDK 7 technologies and the most recent Java advancements. It's the first option which provides support for JDK 7, Java EE 7, and JavaFX 2. The IDE completely supports Java EE using the rearmost norms for Java, XML, Web services, and SQL and completely supports the GlassFish Garçon, the reference perpetration of Java EE. USE CASE illustration the unified modelling language used is use case illustration.

MySQL 8.0 Command Line Client:

MySQL is an open-source RDBMS that relies on SQL for processing the data in the database. MySQL provides APIs for the languages C, C++, Eiffel, Java, Perl, PHP and Python. In addition, OLE DB and ODBC providers exist for MySQL data connection in the Microsoft environment. A MySQL .NET Native Provider is also available, which allows native MySQL to .NET access without the need for OLE DB. MySQL is most commonly used for Web applications and for embedded applications and has become a popular alternative to proprietary database systems because of its speed and reliability. MySQL can run on UNIX, Windows and Mac OS. MySQL is developed, supported and marketed by MySQL AB.

USE CASE DIAGRAM:

The unified modelling language used is use case diagram. A use case is a set of scenarios that describes an interaction between a user and a system. A use case diagram displays the relationship among actors and use cases. The two main components of a use case diagram are use cases and actors. The actors in our system are students and lecturers. The use case diagram is designed in the following figure.

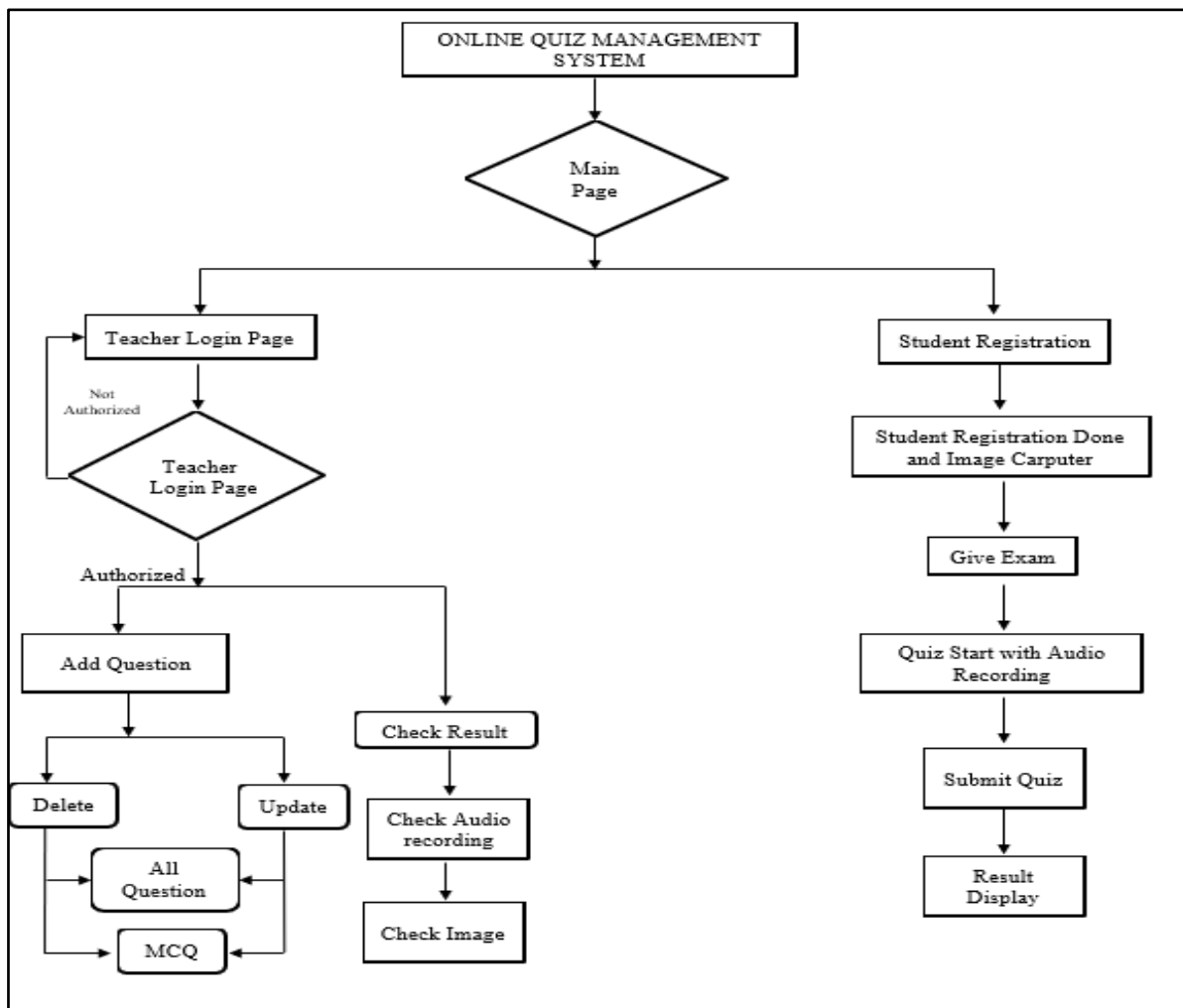


Fig (1.1) Operation Chart



INTERFACE DESIGN:

Online examination system refers to service as conduct online examination or test. OnlineExamination system will use in schools, colleges, universities, institutes for studentsExamination. Online course examinations are useful to evaluate the student’s knowledgeusing modern computer technology without any effects on the traditional universitycourse exam that uses pens, papers invigilators. The scope of the project is consisting of Admin module which is nothing but Teacher Module through which teacher is able to add questions, update questions also able to see the results of the students as well as other details at a glance. The teacher is also able to see the image of the student which is capture before the start of the examination. The audio is also recorded during the examination which can be available for the teacher once the examination is completed.The purpose of the system is to completely automate the old manual procedure of conducting exam to an online System.The students will attempt the exam online. Online quiz or Exam Management system is the best compared to paper-based exam. The automated system helps students and lecturers to save time and makes the process faster. It saves space since answers papers will not be used. With a user-friendly system that has security, integrity and the database is neither inconsistent nor redundant

Different sections of the Online Quiz Management System are as follows:

1. Main Page of Online Quiz Management System:

This is main Page of Online Quiz Management System. Click on Teacher (Button) and enter in the teacher login page



Fig (1.2) Main Page

2. Teacher Login Page of Online Quiz Management System

In this Teacher or Admin Login by Entering User name: APCOE and Password: Admin

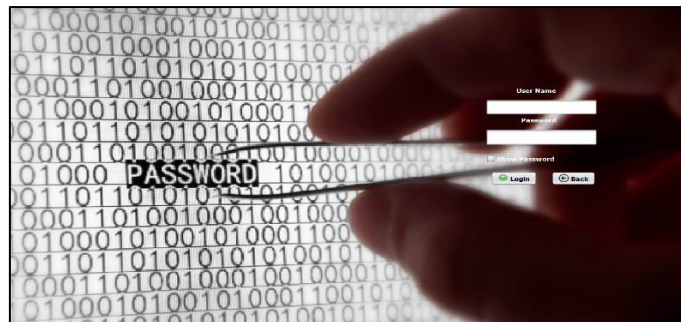


Fig (1.3)Teacher Login Page

If you enter wrong password or user name then small window pop-up.If all is correct and press login button then Navigation Bar Page Open

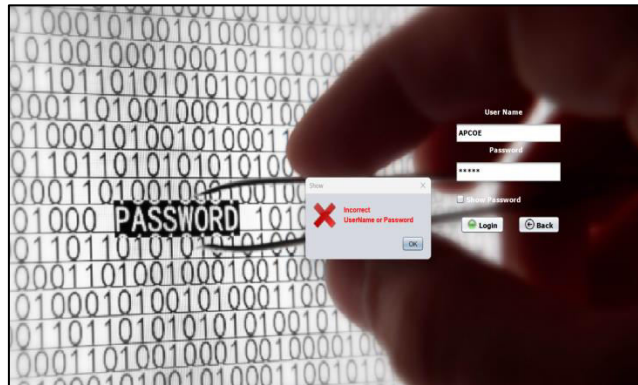


Fig (1.4)Teacher Login Page wrong password

3.Navigation Bar of Online Quiz System:

In this Page Teacher or Admin have Following authorities

- ✓ Add New Question
- ✓ Update Question
- ✓ Delete Question
- ✓ Check All Question and Result

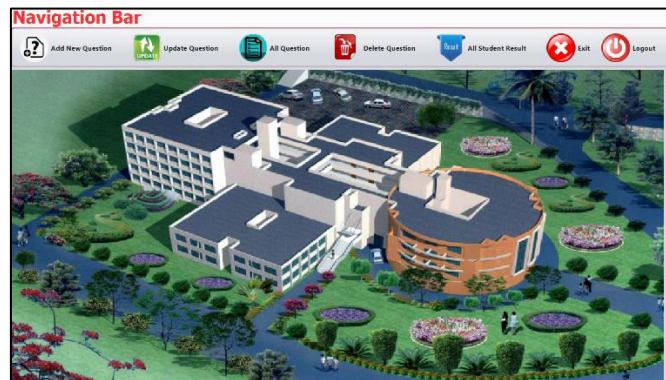


Fig (1.5) Navigation Bar

Add New Question:



Fig (1.6) Add New Question



Update Question:

Fig (1.7) Update Question

Delete Question:

Fig (1.8) Delete Question

Check All Question and Result:

id	name	opt1	opt2	opt3	opt4	answer
1	Which of the following is f.	The rt.jar stands for the ru.	it is an optional jar file	it contains all the compiled	All the classes available in	it is an optional jar file
2	Which of the following is n.	Dynamic	Architecture Neutral	Use of pointers	Object-oriented	Use of pointers
3	Which of the following is th.	Echo I	Telstar I	Early Bird	Sputnik I	Sputnik I
4	Which of the following is th.	Early Bird	Telstar	Exploere	Courier	Telstar
5	What is the first passive s.	Sun	Early Bird	Score	Moon	Early Bird
6	The first satellite to receiv.	Intelsat I	Apoll I	Syncom I	Telstar I	Telstar I
7	A helical antenna is used f.	circular polarization	maneuverability	beamwidth	gain	circular polarization
8	What is the size of float an.	32 and 64	31 and 81	32 and 60	32 and 32	32 and 64
9	Automatic type conversion.	byte to int	int to long	long to int	short to long	int to long
10	When an array is passed t.	reference of the array	copy of the array	length of the array	copy of the first element	reference of the array
11	Arrays in java are ?	Object references	Objects	Primitive data type	None	Objects

Fig (1.9) All Question



Check All Question and Result:

rollNo	name	fatherName	motherName	gender	contactNo	email	10thScore	10thPerce	10thPass	12thScore	12thPer	12thPas	graduation
123	Parikshit	Satyanara	Mangala	Male	997559310	parikshit...@gmail.com	55	66	2211	100	60	2213	DC C&T
1234	Arpit	Ramesh	Vanshali	Male	999999999	Arpit@gmail.com	55	77	2012	100	77	2014	BCom
10011	Piya	Ram	Sita	Female	757599810	piya.ram@...@gmail.com	45	45	1999	43	43	2000	BE
10012	Sonu	Ravi	Seema	Male	9988776655	Sonu@...@gmail.com	55	77	1999	100	65	1992	BCom
17341	Ram	Sham	Sita	Male	173416789	Ram@...@gmail.com	55	50	2020	100	60	2022	B.Com
10010	Hrushikesh	Gopal	Beta	Male	48090173	Hrushikesh...@gmail.com	55	70	2000	100	75	2002	MNS
1234	Yogesh	Ravi	Udam	Male	123456789	Ravi.yogesh...@gmail.com	66	66	2001	100	77	2003	BSC
12345678	Parikshit	Satyanara	Mangala	Male	997421511	Mishra...@gmail.com	55	66	2001	100	65	2004	BE
999	test	test	test	Male	399921170	test@...@gmail.com	90	90	2020	100	90	2018	test

Fig (1.10) Result

4. Student Registration Page of Online Quiz System:

From Main Page Click on Student (Button) and enter in the Student Registration Page

Fill Up Form Date: 20-05-2023

Roll Number:

Name:

Father Name:

Mother Name:

Gender:

Contact Number:

E-Mail:

10th: Enter University Name Enter Percentage Enter Passout Year

12th: Enter University Name Enter Percentage Enter Passout Year

Graduation: Enter University Name Enter Percentage Enter Passout Year

Address:

Fig (1.11) Registration Page

Fill up Form of Student registration. Press Save and Next Button from Page

Fill Up Form Date: 12-05-2023

Roll Number:

Name:

Father Name:

Mother Name:

Gender:

Contact Number:

E-Mail:

10th:

12th:

Graduation:

Address:

Fig (1.12) Information Fill



5. Capture Image:

Instruction and Image Capture

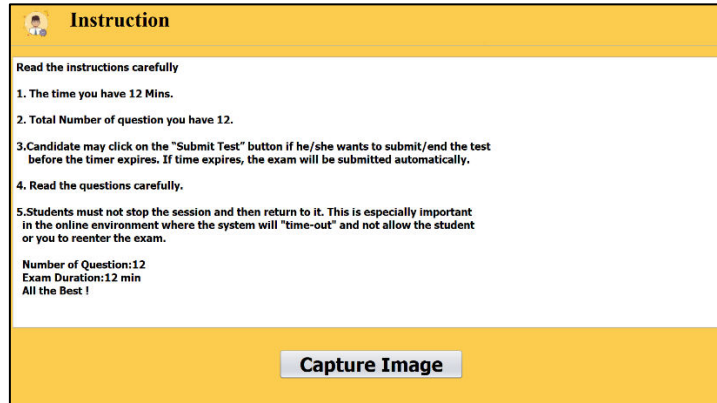


Fig (1.13) Instruction and Image Capture

Capture Image show if it is not clear. Then student recapture image and Start Quiz

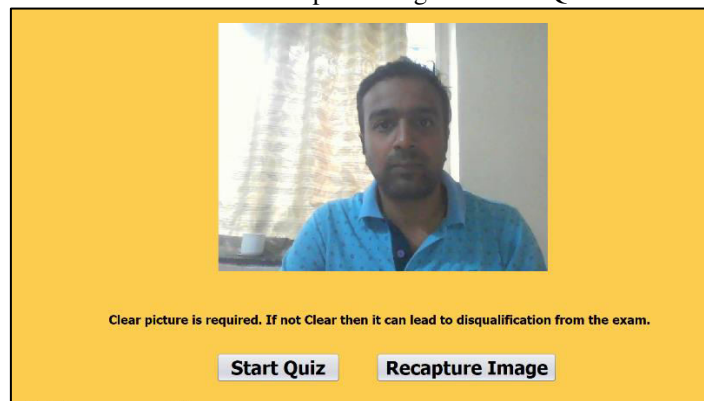


Fig (1.14) Recapture Image

6. Examination:

In this Page Student Roll Number and Name mention, MCQ Pattern question and option give After selecting any one option student should press next button for next question.

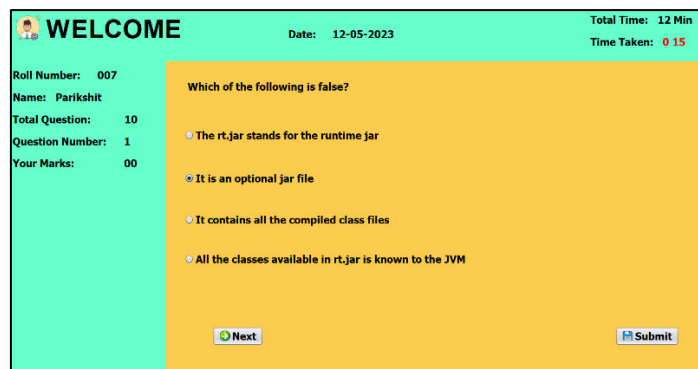


Fig (1.5) Test strat



Submit the exam:

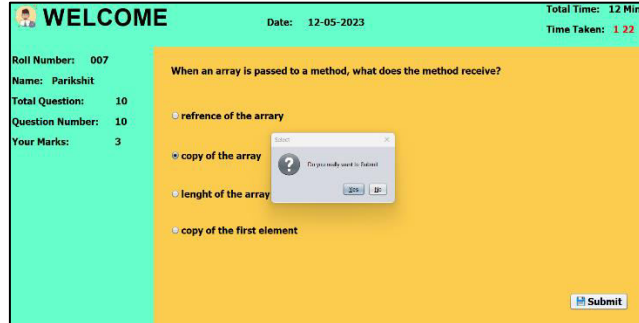


Fig (1.16) Submit test

Result of the Exam:

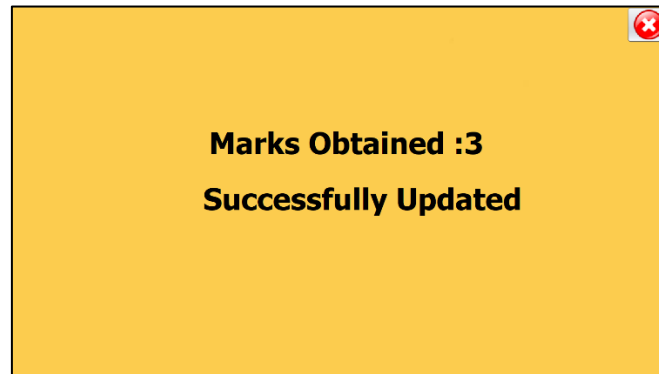


Fig (1.17) Result

7. Audio Recording:

The audio is also recorded during the examination.

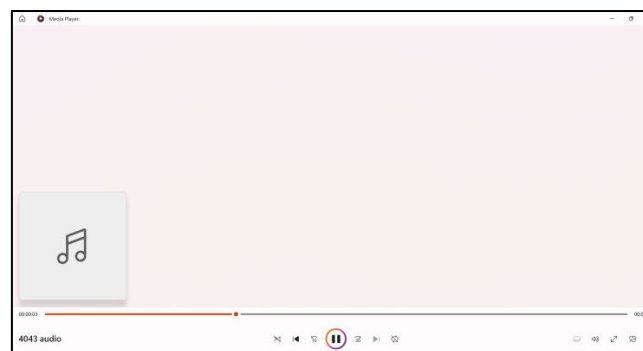


Fig (1.18) Audio Recording

IV. CONCLUSION

The whole design of online Quiz management model provides a base for students, scholars and any examiner to take their test. This online Quiz management model is basically consisting of Student registration and Admin module. This model also allows admin to add questions, update questions, and observe the result of exam and details of any student or scholar at a glance. To avoid the certain unavoidable circumstances the audio is also recorded during the examination. To provide the secure and authenticate online Quiz management model, the image capturing feature is also added. After filling all details in the form, before starting of the exam the photo of the student can be clicked and available at background for admin (Teacher). Admin can crosscheck the details after the exam. The proposed online



Quiz management model can be easily adopted by universities and institutions in order to make the exam more secure and more flexible. Thus, the proposed system is easy and flexible.

REFERENCES

1. Sumaiya Kabir [1], Md. Parvez Hossain [2], Kaushik Mallik[3], Mansura Rahman[4], Md. Jahidul Islam[5], Ayesha Khatun[6] . An Extensive Online Examination System with Automatic Assessment Technique. Date of Issue: 01, DECEMBER 2019
2. Aditya Nigam[1] · Rhitvik Pasricha[2] · Tarishi Singh[3]· Prathamesh Churi[4]. A Systematic Review on AI-based Proctoring Systems: Past, Present, and Future. Date of Issue: 24 March 2021
3. SakirTasdemir[1] , Mehmet Balci[2] , Ayse Cabi[3] , Mustafa Altin[4] , Osman Cabi[5]. The Design and Application of Online Exam System Supported by Database. Date of Issue: 15 August 2014
4. Anjali Choubeya[1], Avinash Kumarb[2], Ayush Ranjan Behra c[3], Anil Raj Kisku d[4], Asha Rabidase[5] and Beas Bhadrar [6] A Study On Web Based Online Examination System DOI: 01 April 2020
5. Feras Al-Hawari[1], Mai Alshawabkeh[2], Haytham Althawbih[3] and Omar Abu Nawas[4], Integrated and Secure Web-Based Examination Management System, DOI: 10.1002
6. Jegatha Deborah L [1], KarthikaR[2] , Vijayakumar P [3] and Bharat S. Rawal [4], Yong Wang[5], Secure Online Examination System for e-learning, DOI: 02 October 2019
7. Richa Bhardwaj [1], Online Exam Management System Using Deep Learning, Issue 4 April 2020
8. N. Abdel Karim and Z. Shukur, “Proposed features of an online examination interface design and its optimal values,” *Comput. Hum. Behav.*, vol. 64, pp. 414–422, Nov. 2016.
9. Z. Wu, T. He, C. Mao, and C. Huang, “Exam paper generation based on performance prediction of student group,” *Inf. Sci.*, vol. 532, pp. 72–90, Sep. 2020.
10. S. Manoharan, “Cheat-resistant multiple-choice examinations using personalization,” *Comput. Educ.*, vol. 130, pp. 139–151, Mar. 2019.
11. K. A. D’Souza and D. V. Siegfeldt, “A conceptual framework for detecting cheating in online and take-home exams,” *Decis. Sci. J. Innov. Educ.*, vol. 15, no. 4, pp. 370–391, Oct. 2017.
12. F. Al-Hawari, M. Alshawabkeh, H. Althawbih, and O. Abu Nawas, “Integrated and secure Web-based examination management system,” *Comput. Appl. Eng. Educ.*, vol. 27, no. 4, pp. 994–1014, 2019.
13. M. W. Anwar, M. Rashid, F. Azam, A. Naeem, M. Kashif, and W. H. Butt, “A unified model-based framework for the simplified execution of static and dynamic assertion-based verification,” *IEEE Access*, vol. 8, pp. 104407–104431, 2020.
14. J. Golden and M. Kohlbeck, “Addressing cheating when using test bank questions in online classes,” *J. Accounting Educ.*, vol.52, Sep. 2020, Art. no. 100671.



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor: 8.423



ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 **9940 572 462**  **6381 907 438**  **ijirset@gmail.com**



www.ijirset.com

Scan to save the contact details